

# I: Introduction

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## A. Coastal Southern California and its Wetlands

Coastal Southern California is a critical region of the country whose vitality largely depends on its wetlands, rivers, streams, and nearshore waters (collectively, “wetlands”). The gross regional product of about \$500 billion constitutes six percent of the entire U.S. economy, ranking the region as the 12<sup>th</sup> largest economy in the world. The Los Angeles-Long Beach Port Complex is the largest in the United States and the third largest in the world, placing it at the center of the nation’s vast trade network. The *region’s* population of over 16 million exceeds every state but New York and Texas, and exceeds the combined population of the fifteen least populous states; and, the numbers are expected to grow to 22 million by 2020. A full 25 percent of the *nation’s* coastal population currently resides in the region. People flock here to enjoy America’s only Mediterranean climate, characterized by warm, dry, summers and mild winters. The region’s economic and political significance is unmatched.

While the natural environment has served as a magnet for people and commerce, the resulting pressures have radically altered the region’s waters, which were key to attracting people in the first place. The impacts of housing, flood control, transportation, and economic development are unprecedented. The National Research Council determined that California has lost a greater percentage of its wetlands than any other state. The five coastal counties (San Diego, Orange, Los Angeles, Ventura, Santa Barbara), with 8.6 percent of the state’s land area and almost 50 percent of the state’s population, have been particularly hard-hit. Losses exceed 95 percent in Los Angeles County.

Where wetlands and waterways have not been filled, they have often been dammed, diverted, channelized, or polluted. The region has more flood control dams (227), more debris basins (193), and more miles of cemented stream channels than any other. Flood waters are typically shunted to sea rather than used to recharge aquifers. At the same time, the region has made enormous infrastructure investments for importing water, drastically altering the natural hydrologic regime. Southern California is the only major region in the country where contaminated urban runoff flows directly into streams and drains to nearshore waters rather than going to sewage treatment plants to be treated for possible reuse. Over 150 beach closures occurred during the summer of 2000, undermining a tourism and recreation industry worth over \$7 billion annually to the region.

Southern California supports a tremendous diversity of native species. The rugged topography, narrow coastal shelf, and semi-arid climate have created dynamic conditions that support an unusually varied and distinct assemblage of species. Unfortunately, 150 animal and 52 plant species supported by the region’s rivers, streams, and wetlands are considered as “special status” by either state or federal agencies. Noted biologist E.O Wilson has designated the region as one of the world’s eighteen “hotspots” —the only one on the North American continent—due to the scale of threatened biodiversity. A subset of the region’s coastal wetlands have been nominated

as wetlands of international significance under the Ramsar Convention due to their importance for migratory birds, fisheries, endangered species, and biodiversity.

A coastal watershed, the area that drains into a watercourse, determines the health of its streams and rivers. The watershed is the source of smothering sediments, pollutants, aggressive exotic plants, and extreme flows of freshwater that can destabilize stream corridors. Riparian habitats along the streams contribute significantly to the region's biodiversity and perform other valuable services such as slowing storm waters, recharging groundwater, and removing contaminants. But if the riparian area is degraded and the water overwhelmed with inputs, the streams and rivers deliver polluted water and sediments to coastal wetlands and nearshore waters, contributing to their decline and degradation. Coastal wetlands suffer, too, if contaminants denude nearshore waters or if water and sediment flows drastically alter water circulation patterns. These interrelationships require that restoration work be carefully planned so it does not all come to naught.

Although losses have been staggering, precious areas remain or can be recovered. Restoration of Southern California's coastal wetlands and watersheds, however, is a daunting task. The physical and hydrological landscape of Southern California has been irreversibly altered by human activities, often making it impossible to re-establish historic conditions. Extensive development, as well as geologic and topographic constraints limit opportunities for coastal wetland restoration. Opportunities for preservation and restoration of stream corridors and riparian habitat, while more numerous, are also constrained by encroaching development and flood control concerns.

Nonetheless, the values resulting from strategically planned restoration are momentous, not only for the economic potential of their hydrological, habitat, and water purification functions, but for their potential to enhance the quality of life in this highly developed region. The lure of rivers, streams, wetlands, and nearshore waters is powerful. These are favored destinations for school trips, family outings, contemplative and recreational activities, and vacations. They offer a welcome contrast to the uniformity of the urban landscape and kindle curiosity about the natural world and the role of humans in it.

Coastal Southern California is a region like no other in terms of the growth and environmental transformation it has experienced. It also stands alone in terms of its geologic, hydrologic, climatic, and ecological characteristics. Wetlands research that has been based primarily on coastal systems of the Atlantic and Gulf region, has resulted in scientific findings, public policies, and educational programs that show little understanding of coastal Southern California's distinctive, highly dynamic wetland conditions. Against this backdrop of loss and lack of understanding, the Southern California Wetlands Recovery Project was formed to develop a more coordinated and comprehensive strategy for preserving and restoring the region's waters.

#### **Common Wetlands Functions**

- Fish and wildlife habitat
- Food chain support (primary productivity)
- Flood water storage
- Shoreline and streambank anchoring
- Sediment Trapping
- Water quality and nutrient processing
- Groundwater recharge

## B. The Wetlands Recovery Project

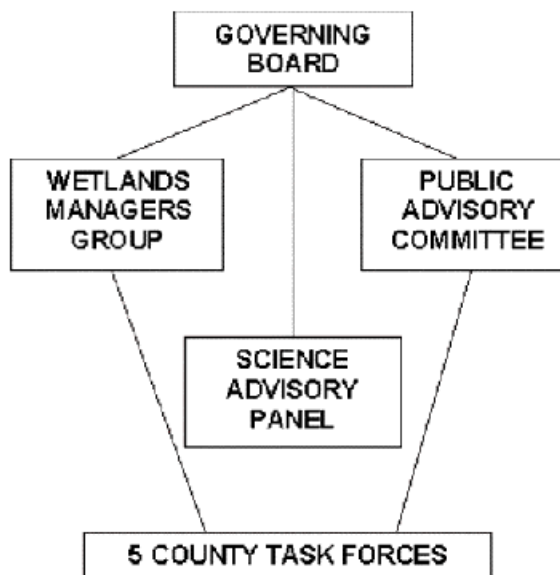
The Southern California Wetlands Recovery Project (WRP) is a novel and broadly based partnership with 17 state and federal agencies working in concert with scientists, local governments, and environmental organizations, as well business leaders and educators to increase the pace and effectiveness of wetlands recovery efforts in Southern California. The WRP's geographic scope includes coastal wetlands and watersheds in a 5-county area spanning from Point Conception (in Santa Barbara County) south to the U.S.-Mexico border. The WRP employs three primary strategies to recover wetlands: (1) acquiring property from willing sellers, (2) restoring wetlands where allowed by landowners and land managers, and (3) educating people about best practices to protect wetlands. It ultimately seeks to reestablish a mosaic of functioning wetland and riparian systems that supports a diversity of species, while also providing refuges for humans amidst the urban landscape.

While some of the WRP's partner agencies protect wetlands through regulation, the WRP partnership itself was created to pool resources and recover wetlands using non-regulatory strategies.<sup>1</sup> Over 50 percent of wetlands nationwide have disappeared, with over 91 percent lost in California. Federal and state regulations have stemmed losses, but have not reached the "no net loss" objective. As the value of services performed by wetlands becomes clearer, the motivation to protect existing wetlands and recover lost wetlands increases. The WRP, because it seeks to recover functioning systems, does not limit its purchases and restoration activities to "wetlands" as defined by regulatory agencies, but includes within its ambit historic wetlands, areas fringing wetlands, and uplands integrally related to a healthy wetland ecosystem.

Weaving together an integrated structure in a region as large and fragmented as coastal Southern California presents formidable challenges. The WRP began as an agency initiative in 1997 with the execution of a memorandum of understanding—the Working Agreement—which committed the signatories to develop and carry out a "regional prioritization plan" for acquisition and restoration in order to increase "the quantity and quality of the region's wetlands." The Working Agreement described an organizational framework which has continued to evolve (Figure A).

The Secretary of the State Resources Agency chairs the **Governing Board**, the overarching policy making body for the WRP, which comprises the top officials

**Figure A: Organizational Chart**



<sup>1</sup> Partner agencies with regulatory authority include both federal agencies (Environmental Protection Agency, the Fish and Wildlife Service, the National Marine Fisheries Service, the Army Corps and Engineers) and state agencies (California Coastal Commission, Department of Fish and Game, Regional Water Boards).

from the 17 state and federal partner agencies as well as the chairs the Science Advisory Panel and Public Advisory Committee, who serve as *ex-officio* members. High-level staff representing the Government Board members constitute the **Wetlands Managers Group**, whose role is to identify for the Board a set of projects and activities to implement the regional strategy, facilitate interagency coordination, and generate policy proposals for Governing Board consideration. The **Science Advisory Panel** consists of leading researchers and restoration practitioners in fields related to wetlands science. They identify key scientific questions for research funding, develop position papers for the Board's consideration, and help to ensure WRP actions are informed by sound science. Local elected officials, environmental leaders, business people, and educators serve on the **Public Advisory Committee**. They engender support for wetlands recovery throughout the region and represent community interests in the WRP partnership.

The innovative structure of the five **County Task Forces** endows the WRP with its distinctive vitality. Each is co-chaired by a County Supervisor and environmental leader, both of whom sit on the Public Advisory Committee. The Task Forces provide a county-wide forum for public, private, and non-profit wetlands and watershed stakeholders. Participants work collaboratively to identify critical wetland resources, help implement feasible projects, and promote wetlands education and information-gathering. The Task Forces are creating integrated watershed networks throughout each county to share information, mobilize support for funding, channel community concerns to the PAC and WRP as a whole, and incorporate wetlands protection and recovery more fully into local government processes.

The breadth of the WRP's participation requires skillful management. The **State Coastal Conservancy** administers the WRP partnership. It helps staff the different organizational units—the Managers Group, the Science Advisory Panel, and the Public Advisory Committee, and the County Task Forces. It serves as the fiscal agent for the majority of the state funding that comes to the WRP; it implements or oversees implementation of the WRP's acquisition and restoration projects; and it manages several communication channels including a web site and an electronic newsletter.

## C. Regional Recovery Strategy

The Regional Recovery Strategy articulates the long-term goals and specific implementation strategies to guide the efforts of the WRP and its partners. These goals will serve as a point of reference for all of the partners of the WRP—at the federal, state, and local level—to ensure that individual wetlands projects are part of a comprehensive and coordinated recovery effort.

The Regional Strategy has been evolving along with the WRP. An early iteration resulted from the first meeting of the Science Advisory Panel (SAP) in October 1997 which identified some criteria for regional wetlands planning and recommended an initial set of acquisition and restoration priorities. Strategic thinking has been refined during the formulation of each Annual Work Plan—the set of projects approved by the Governing Board. State funds to implement projects on the Work Plan are typically routed through the State Coastal Conservancy budget. The Work Plan, however, also serves as the template to guide funding by state, federal, and local partners through their distinct budget processes. The Wildlife Conservation Board, for example, uses the Work Plan to target some of its Southern California spending. Work Plan discussions

within the Managers Group and Task Forces have served to clarify goals and to highlight some of the perplexing issues that attend restoration in a highly urbanized environment. In October 2000, the WRP hosted a Symposium for over 100 participants, representing all of the WRP's organizational units, to further consider the WRP's regional goals and priorities. From this material, the WRP Managers Group prepared a draft Regional Strategy, and oversaw a year-long process through which the draft was extensively reviewed, commented upon, revised, and then endorsed by each of the WRP's constituent units. With this underlying collaborative effort, the Regional Strategy represents a truly collective vision for the recovery of the region's wetlands.

This Regional Strategy is divided into five chapters and two appendices. This chapter has provided an introductory overview of the region, the wetlands, the WRP and the development of this Regional Strategy. Chapter 2 summarizes the conditions prevailing in the region's coastal wetlands and coastal watersheds, which are described in Appendix A in greater detail. The goals framing the Regional Strategy and selected strategies for realizing these goals are described in Chapter 3, and are followed by a description of county-specific objectives in Chapter 4. Finally, Chapter 5, which is bound separately, contains the WRP's five year implementation plan, explaining how the goals are to be implemented over the next phase of the WRP's evolution. Appendix B summarizes regional plans that relate to wetlands recovery and are to be integrated into the WRP's deliberations.

The WRP encompasses wetlands recovery efforts at the federal, state, and local level. The Regional Strategy articulates a shared vision that each partner can turn to for guidance in how to manage staff effort, direct resources, and measure progress. Success depends not only on a few agencies actively engaged, but on each and every partner, at all levels, seeking to enhance the overall program with the particular resources that they wield. A key to success will be ongoing integration—integration of the Regional Strategy into the decision-making processes of the WRP partners, integration of related regional planning resources and objectives into WRP deliberations, and, ultimately, the integration of wetlands and watershed recovery into the thinking of all of those who affect the vitality of these critical resources. This Regional Strategy is one step in that direction. Much information remains to be collected and analyzed. More research remains to be done. Better integrative tools need to be developed. One important outcome of this Regional Strategy is that it sets the course for this further evolution.